



اَوْنِيُوْرَسِيْتِيْ بِاْتِيْكْنُوْلُوْجِيْ مَارَا
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MECHANICAL ENGINEERING DESIGN

(MEC332)

REPORT

PROJECT: HAND SANITIZER DISPENSER

GROUP: KAKAROT

CLASS: EM1105D

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INTRODUCTION

1.1 Overview of The Project

Retrospective investigations by Chinese authorities have identified human cases with onset of symptoms in early December 2019. While some of the earliest known cases had a link to a wholesale food market in Wuhan. Coronaviruses are a type of virus. There are many different kinds, and some cause disease. A newly identified coronavirus, SARS-CoV-2, has caused a worldwide pandemic of respiratory illness, called COVID-19. These pandemic cases had leads to 1,000,000 deaths reported by the World Health Organization (WHO) and always have new cases increase day by day. As of now, researchers know that the new coronavirus is spread through droplets released into the air when an infected person coughs or sneezes. The droplets generally do not travel more than a few feet, and they fall to the ground (or onto surfaces) in a few seconds this is why physical distancing is effective in preventing the spread.

So, to avoid this pandemic we must follow the Standard Operating Procedure (SOP) to keep safe. Physical imprisonment is difficult to practice in crowded and narrow areas, but taking lessons from the occurrence of these clusters, the community is advised to abide by and obey the advice given. This is to reduce the risk of infection in the community. Assembly activities organized without complying with the SOP can increase the risk of COVID-19 transmission to the public. Therefore, it is very important for us to always be vigilant and strive to protect ourselves, family and even the community around us from getting COVID-19 infection. The spread of this virus can be avoided by always ensuring safe physical imprisonment, frequent hand washing with soap and water or hand sanitizer as well as the use of face masks.

Only 75 percent of the people in Malaysia practice to use hand sanitizer before entering some place like mall, restaurant, and others. A lot of educational campaign has been implemented by the government like 'Kita Jaga Kita' meant that we must always keep using the hand sanitizer to kill the virus. Based on our survey, almost 80% of respondents agreed that the main problem on using the hand sanitizer is people did not feel comfort to push the bottle using the hand. Hence, this project aims to develop a hand sanitizer dispenser by foot. This project able to encourage people to use the hand sanitizer before entering the any place that crowded by people.

The aim of this invention is to control the spread of coronavirus from an infected individual to others while using the same bottle of sanitizer. The sanitizer could be used with this device without hands touching the bottle. The bottle would dispense the liquid by pressing the pedal with one foot. The mechanism used in this product is known as the Mechanism of Foot-Activated Levers. A great amount of force can be produced by applying a small amount of force to a pedal by the human foot in this mechanism. The whole mechanism gets connected when pressing the pedal and the mechanism is triggered. A linear motion in the top part of the product results from the mechanical energy released after the activation. This up and down motion thus presses the pump present in the sanitizer bottle, and sanitizer is dispensed. In conclusion, this project managed to achieve its objectives by keeping the people to not lazy to use hand sanitizer and it confirm safe to themselves.

1.2 Design Objective

1. To design a hand sanitizer dispenser by using simple analysis by using Computer Aided (CAE), solid work.
2. To evaluate the performance of product through of the it's using.
3. To study of function and ability of the hand sanitizer dispenser.